

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims.

1. (Canceled)
2. (Currently Amended) The method of claim 50₁ further comprising:
specifying a feature-value set for a plurality of ~~network terminal~~ devices, said—the feature-value set including a set of selected device features with one or more discrete feature values assigned to each said-of the selected device features, wherein each said-of the selected device features is selected from the features of the plurality of ~~network terminal~~ devices in accordance with a pre-established criterion.
3. (Currently Amended) The method of claim 2₁ wherein said—the set of selected device features comprises ~~a member of the group consisting of either~~ display size, aspect ratio, display line count, color capability, graphics capability, variable size text capability, different font capability, input capability, and input bandwidth, or a combination thereof.
4. (Currently Amended) The method of claim 2₁ wherein said—the pre-established criterion includes a determination that a particular said-selected device feature affects the manner in which the authored content is presented.
5. (Currently Amended) The method of claim 2₁ wherein said—the feature value set comprises discrete values assigned to selected features of a generic ~~network terminal~~ device.

6. (Currently Amended) The method of claim 5, wherein ~~said~~ ~~the~~ generic ~~network~~ terminal device comprises a set of device features selected from the display features of the plurality of ~~network~~ terminal devices.

7. (Canceled)

8. (Currently Amended) The method of claim 50, wherein ~~said step of the determination~~ to convert ~~converting~~ the device-independent content comprises: the step of identifying a metatag section of ~~said~~ ~~the~~ markup information corresponding to the device feature values associated with the ~~network~~ terminal device.

9. (Currently Amended) The method of claim 50, wherein ~~said step of the determination~~ to convert ~~converting~~ the device-independent content comprises: the step of determining to remove ~~removing~~ ~~said~~ ~~the~~ markup information from ~~said~~ ~~the~~ device-independent content.

10. (Currently Amended) The method of claim 50, further comprising:
automatically analyzing ~~said~~ ~~the~~ device-independent content; and
automatically determining to embed ~~embedding~~ meta-data into ~~said~~ ~~the~~ device-independent content, ~~said~~ ~~the~~ meta-data comprising device feature values based, at least in part, on the device-independent content.

11. (Currently Amended) The method of claim 50, wherein ~~said~~ ~~the~~ requesting ~~network~~ terminal device comprises at least one of a wireless telephone and a personal digital assistant.

12. (Currently Amended) The method of claim 50, further comprising:
identifying ~~said~~the requesting network terminal device prior to ~~said step of~~ identifying one or
more of the device feature values associated with the ~~network terminal~~ device.

13. (Currently Amended) The method of claim 12, wherein ~~said step of~~ identifying ~~said~~
the requesting network terminal device comprises reading ~~network terminal~~ device information
contained in ~~said~~the request.

14. (Currently Amended) The method of claim 50, wherein ~~said step of~~the determination
to convert ~~converting~~ the device-independent content comprises:

determining ~~the~~an array of display pixels available in ~~said~~the requesting network terminal
device based, at least in part, on the device feature values associated with the ~~network~~
~~terminal~~ device;

comparing ~~said~~the array of display pixels with an array of image pixels corresponding to an
image in the device-independent content;

selecting ~~said~~the image for display in ~~said~~the requesting network terminal device if ~~said~~the
array of image pixels does not exceed ~~said~~the array of display pixels; and
determining to suppress ~~suppressing~~ said image from display if ~~said~~the array of image pixels
does exceed ~~said~~the array of display pixels.

15. (Currently Amended) The method of claim 50, wherein ~~said step of~~the determination
to convert ~~converting~~ the device-independent content comprises:

determining an aspect ratio for ~~said~~the requesting network terminal device from the device
feature values associated with the ~~network terminal~~ device;

determining to send sending content marked with an attribute of square to said the requesting network terminal device if said the aspect ratio is square;

determining to send sending content marked with an attribute of portrait to said the requesting network terminal device if said the aspect ratio is portrait; and

determining to send sending content marked with an attribute of landscape to said the requesting network terminal device if said the aspect ratio is landscape.

16. (Currently Amended) The method of claim 50, wherein said step of the determination to convert converting the device-independent content comprises:

determining that said the device-independent content is marked as having a uni-axis free form characteristic;

identifying the number of segments supported by the display in said the requesting network terminal device;

concatenating a number of rows for sending to said the requesting network terminal device if said the uni-axis free form characteristic includes a list characteristic, wherein said the number of rows corresponds to said the number of segments supported; and

concatenating a number of columns for sending to said the requesting network terminal device if said the uni-axis free form characteristic includes a column characteristic, wherein said the number of columns corresponds to said the number of segments supported.

17. (Currently Amended) The method of claim 50, wherein said step of determination to convert converting the device-independent content comprises:

determining that ~~said-the~~ device-independent content is marked as having bi-axially free form characteristic;

identifying the character count supported by a display in ~~said-the~~ requesting network terminal device;

determining to send sending to ~~said-the~~ requesting network terminal device a segment of content, wherein the character count in ~~said the~~ segment corresponds to ~~said-the~~ character count supported by ~~said-the~~ display.

18-19. (Canceled)

20. (Currently Amended) The system of claim 51, further comprising a device profile repository accessible by ~~said-the~~ network terminal device detector, ~~said-the~~ device profile repository including a feature-value set for the requesting network terminal device, ~~said-the~~ feature-value set including a set of selected network terminal device features with one or more discrete device feature values assigned to each ~~said-of the~~ selected network terminal device features.

21. (Currently Amended) The system of claim 51, further comprising a content repository accessible by ~~said-the~~ origin server, ~~said-the~~ content repository for storing annotated authored content whereby ~~said-the~~ origin server provides device-independent content from ~~said-the~~ annotated authored content.

22. (Currently Amended) The system of claim 51, wherein saidthe at least one ~~network terminal~~ device feature value is selected from the features of the requesting ~~network terminal~~ device in accordance with a pre-established criterion.

23. (Currently Amended) The system of claim 51, wherein saidthe set of device feature values associated with the requesting ~~network terminal~~ device comprises a member of the group consisting of display size, aspect ratio, display line count, color capability, graphics capability, variable size text capability, different font capability, and input capability.

24. (Currently Amended) The system of claim 51, wherein saidthe requesting ~~network terminal~~ device comprises at least one of a wireless telephone and a personal digital assistant.

25. (Canceled)

26. (Currently Amended) The ~~computer readable media~~non-transitory computer-readable storage medium of claim 52, wherein said step ofthe step of determining to convertconverting comprises:

determining to convertconverting the content by interpreting metatags embedded in the content.

27. (Currently Amended) The ~~computer readable media~~non-transitory computer-readable storage medium of claim 52, wherein said step ofthe step of determining to convertconverting comprises:

determining to convert ~~eonverting~~ the content into a landscape-formatted display format if the terminal device has a landscape-formatted display; and

determining to convert ~~eonverting~~ the content into a portrait-formatted display format if the terminal device has a portrait-formatted display.

28. (Currently Amended) The ~~computer readable media~~ non-transitory computer-readable storage medium of claim 52, wherein said step of the step of determining to convert ~~eonverting~~ comprises:

determining to convert ~~eonverting~~ the content into a first aspect ratio if the terminal device has said ~~the~~ first aspect ratio; and

determining to convert ~~eonverting~~ the content into a second aspect ratio if the terminal device has said ~~the~~ second aspect ratio.

29. (Currently Amended) The ~~computer readable media~~ non-transitory computer-readable storage medium of claim 52, wherein said step of the step of determining to convert ~~eonverting~~ comprises:

determining to convert ~~eonverting~~ the content into a small-sized image if the terminal device accommodates only small-sized images, and

determining to convert ~~eonverting~~ the content into a large-sized image if the terminal device accommodates large-sized images.

30. (Currently Amended) The ~~computer readable media~~ non-transitory computer-readable storage medium of claim 52, wherein the apparatus is caused to further perform:
—further comprising

determining to annotate ~~annotating~~ the content with meta-data to indicate the manner in which portions of the content should be represented on a plurality of different ~~terminal~~ devices having incompatible display characteristics.

31. (Currently Amended) The ~~computer readable media~~ ~~non-transitory computer-readable storage medium~~ of claim 52, wherein said step of determining to convert ~~converting~~ comprises: determining to perform ~~performing~~ a best-fit match between said the device display characteristics and one of a plurality of display formats.

32. (Canceled)

33. (Currently Amended) The method of claim 53, wherein identifying comprises: determining a device type of the requesting ~~data processing~~ device, and looking up the one or more display feature values based, at least in part, on the device type.

34. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to a display size of the requesting ~~data processing~~ device.

35. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to an aspect ratio of the requesting ~~data processing~~ device.

36. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to a display line count of the requesting ~~data processing~~ device.

37. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to a color capability of the requesting ~~data processing~~ device.

38. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to a variable size text capability of the requesting ~~data processing~~ device.

39. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to a multiple font capability of the requesting ~~data processing~~ device.

40. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to an input capability of the requesting ~~data processing~~ device.

41. (Currently Amended) The method of claim 53, wherein one of said the one or more display feature values corresponds to an input bandwidth of the requesting ~~data processing~~ device.

42. (Canceled)

43. (Currently Amended) The method of claim 53, wherein said step of the determination to convert ~~converting~~ step comprises:
determining to remove ~~removing~~ the annotations from the device-independent content.

44. (Currently Amended) The method of claim 53, wherein ~~said—the~~ requesting ~~data processing~~ device comprises a wireless telephone.

45. (Currently Amended) The method of claim 53, wherein the determination to convert ~~converting~~ comprises:

determining an array of display pixels available in ~~said—the~~ requesting ~~data processing~~ device based, at least in part, on the one or more display feature values;

comparing ~~said—the~~ array of display pixels with an array of image pixels corresponding to a content image;

selecting ~~said—the~~ content image for display in ~~said—the~~ requesting ~~data processing~~ device if ~~said—the~~ array of image pixels does not exceed ~~said—the~~ array of display pixels; and

determining to suppress ~~suppressing~~ ~~said~~ content image from display if ~~said—the~~ array of image pixels does exceed ~~said—the~~ array of display pixels.

46. (Currently Amended) The method of claim 53, wherein the determination to convert ~~converting~~ comprises:

determining an aspect ratio for ~~said—the~~ requesting ~~data processing~~ device based, at least in part, on the one or more display feature values; and

determining to send ~~sending~~ device-specific content in the determined aspect ratio to ~~said—the~~ ~~data processing terminal~~ device.

47. (Currently Amended) The method of claim 46, wherein ~~said—the~~ aspect ratio comprises a square aspect ratio.

48. (Currently Amended) The method of claim 46, wherein said—the aspect ratio comprises a portrait aspect ratio.

49. (Currently Amended) The method of claim 46, wherein said—the aspect ratio comprises a landscape aspect ratio.

50. (Currently Amended) A method comprising:
receiving device-independent content comprising markup information identifying one or more device feature values associated with the device-independent content, wherein the device-independent content is responsive to a content request from a ~~network terminal~~ device;

identifying one or more device feature values associated with the ~~network terminal~~ device;
matching at least one of the device feature values associated with the device-independent content with at least one of the device features values associated with the ~~network terminal~~ device;

based, at least in part, on said—the matching, determining to convert ~~converting~~ the device-independent content into device-specific content adapted to said—the ~~network terminal~~ device; and

determining to provide ~~providing~~ the device-specific content to the ~~network terminal~~ device.

51. (Currently Amended) A system, comprising:
a ~~network terminal~~ device detector configured to receive a content request from a ~~network terminal~~ device and to determine therefrom one or more device feature values associated with the requesting ~~network terminal~~ device;

an origin server configured to receive said—the content request and, in response thereto, to provide device-independent content corresponding to said—the content request, wherein said—the device-independent content comprises markup information identifying one or more device feature values associated with the device-independent content; a transformer configured to receive said—the device-independent content from said—the origin server, to associate at least one of the device feature values associated with the device-independent content with at least one of the device features values associated with the ~~network terminal~~ device, and to transform said—the device-independent content into device-specific content formatted for the requesting ~~network terminal~~ device.

52. (Currently Amended) ~~One or more computer readable media storing computer executable instructions that, when executed, perform a method comprising: A non-transitory computer-readable storage medium carrying one or more sequences of one or more instructions which, when executed by one or more processors, cause an apparatus to at least perform the following steps:~~

receiving a request for content from a ~~terminal~~ device;

~~based, at least in part, on said—the request, identifying one or more device display characteristics associated with the terminal device;~~

receiving content responsive to the request, wherein said—the content comprises markup information identifying one or more content display characteristics, said—the content display characteristics expressing an author intent for displaying said—the content on a plurality of devices having different display characteristics;

matching one or more device display characteristics with one or more content display characteristics;

based, at least in part, on said—the matching, determining to convert ~~converting~~ the content into a device-dependent format compatible with one or more device display characteristics of the terminal device; and

determining to transmit ~~transmitting~~ said—the device-dependent formatted content to the terminal device.

53. (Currently Amended) A method comprising:

receiving a request for content from a ~~data processing~~ device;

identifying one or more display feature values associated with the requesting ~~data processing~~ device;

receiving device-independent content responsive to the request for content, the device-independent content comprising embedded annotations specifying author intent for displaying the content on a plurality of devices having different display characteristics, said—the embedded annotations including one or more content display feature values;

matching one or more display feature values associated with the requesting ~~data processing~~ device with one or more content display feature values in the embedded annotations in the device-independent content; and

determining to convert ~~converting~~ the device-independent content into device-specific content based, at least in part, on said—the matching, said—the device-specific content compatible with one or more display feature values associated with the requesting ~~data processing~~ device.

54. (Previously Presented) The method of claim 50, wherein the markup information comprises a first metatag identifying a first value for a first device feature and a second metatag identifying a second different value for the first device feature.

55. (Previously Presented) The method of claim 54, wherein the first metatag is associated with a first portion of requested content and the second metatag is associated with a related second portion of requested content, and wherein only one of the first portion and the second portion is included in the device-specific content.

56. (Currently Amended) An apparatus comprising:

~~a processor configured to control some operations of the apparatus in conformance with computer executable instructions stored in memory, said instructions comprising:~~

at least one processor; and

at least one memory including computer program code for one or more programs,

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

~~receiving—receive~~ device-independent content comprising markup information identifying one or more device feature values associated with the device-independent content, wherein the device-independent content is responsive to a content request from a ~~network terminal~~ device;

~~identifying—identify~~ one or more device feature values associated with the ~~network terminal~~ device;

~~matching~~ match at least one of the device feature values associated with the device-independent content with at least one of the device features values associated with the ~~network terminal~~ device;

~~based, at least in part, on said~~ the matching, ~~determine to convert~~ converting the device-independent content into device-specific content adapted to ~~said~~ the ~~network terminal~~ device; and

~~determine to provide~~ providing the device-specific content to the ~~network terminal~~ device.

57. (Currently Amended) The apparatus of claim 56, wherein a plurality of ~~said~~ the device feature values associated with the ~~network terminal~~ device each corresponds to ~~a member of the group consisting of either~~ either display size, aspect ratio, display line count, color capability, graphics capability, variable size text capability, different font capability, ~~and~~ or input capability, or a combination thereof.

58-60. (Canceled)

61. (Currently Amended) The method of claim 50, wherein the one or more device feature values correspond to physical characteristics of the ~~network terminal~~ device.

62. (Currently Amended) The method of claim 50, wherein ~~said~~ the matching comprises accessing a device profile repository including feature-value data for a plurality of different types of ~~network terminal~~ devices.

63. (Currently Amended) The method of claim 56, wherein said-the matching comprises accessing a device profile repository including feature-value data for a plurality of different types of network terminal-devices.

64. (New) The method of claim 50, wherein the device is a network terminal device.